

Site: Flow Laboratories, Inc. at former New River Ordnance Plant (NROP)

Date: March 23, 2004

Inspection Team: John Regan, USACE; Angela Peyton, USACE; Brad Henry, Micro Pact;
Doug McNabb, IMS; Paul Herman, VDEQ

Purpose: Conduct a one-day site visit to familiarize new NROP project managers Regan; USACE, Herman; VDEQ, and the balance of the team with the FUDS property and the key problem areas contained therein. Primary areas of interest during this visit were the Burlington Industries (BI) property and the former Flow Laboratories (Flow Labs) property (now Mar-Bal Inc.).

Flow Laboratories, Inc. (now Mar-Bal, Inc., 5400 Reserve Way, Dublin, VA 24084 (540) 674-5320):

According to the *Desktop Audit Summary Report* (April 2003) prepared for the U.S. Army corps of Engineers by MicroPact Engineering Inc., parcels within the NROP property were sold. Flow Laboratories, Inc. purchased approximately 114 acres (*EPA Aerial Photographic Analysis - Flow Labs Site - Dublin, VA*) from the site that included two bag loading installations. Many of the buildings associated with the former bag loading installations remain intact.

Flow Labs modified three of the four bag houses. Some of the modifications include installation of over 100 animal cages, raised concrete floors, water lines, electrical service, HVAC equipment, refrigeration equipment (-60°C freezer), and what appeared to be an autoclave. According to the Mar-Bal Plant Manager, Mr. John Treese, one of the newer buildings currently used by Mar-Bal as a yards and grounds equipment storage shed had been used by Flow Labs to raise canines. He stated that Flow Labs had been contracted by Purina, Inc. to test dog food.

Many of the abandoned buildings were easily accessible from the outside. Unlocked doors, if not closed, were either ajar or missing altogether and windows that were not closed were either broken or missing. With such ease of access to the interior of the buildings, only vines saw fit to reside there. No spider webs or other insects were observed. No bird nests or evidence of other living animals were seen. In one of the larger rooms where cages were labeled "herpes 1", "herpes 2", and "new measles", the carcass of a slightly decomposed rat was found.

According to previous inspection reports, laboratory wastes were disposed in trenches and pits on the Flow Labs property. A walk through the wooded area located northeast of building #471 (a former smokeless powder magazine on bag loading line #4), revealed a number of shallow trenches. Along the bottom of some trenches, laboratory refuse was lying on the ground. Syringes, glass slides, plungers, and other laboratory glassware and plasticware were present. On the surface of the mounded dirt beside the trenches were jawbones, teeth, leg bones, vertebrae, etc. in various sizes. The trenches appear to be a landfill for laboratory/medical waste and a burial ground for test-animals.

Points of Interest and Areas of Concern related to Flow Labs use of former FUDS property:

- Laboratory/medical waste landfill and animal burial ground in wooded area northeast of building #471.
- Fill areas evident in aerial photographs (1981) that may contain laboratory/medical waste.
- Other areas of disturbed ground that may contain laboratory/medical wastes and animal remains.

The information that is available concerning the nature of the experiments conducted by Flow Labs is extremely disturbing. The laboratory/medical waste disposed on their property is a major concern. The trenches found in the wooded area did not appear to meet the design requirements of a medical waste landfill. Yet, the surface soil, subsurface soil and groundwater data gaps that exist make it impossible to confirm or deny the presence of biological, radiological, bacteriological, or viral contamination.

Future use of this site is uncertain. Mar-Bal could sell tracts of their land or use it for their own purposes. The New River Planning District Commission (NRPDC) conducted a "Bagging Plant Road Corridor Study: Dublin Eastern Industrial Access Road" in June 2001. One of the alternative routes discussed in the report shows the proposed road passing through the wooded area where the trenches were discovered.

The nature and extent of the landfill activities conducted by Flow Labs and/or their predecessors should be determined. A determination of the presence or absence of any biological, radiological, bacteriological, or viral contamination contained within the property should be ascertained in order to present a "clean" bill of health for the property to future developers. At present, human exposure to the site is limited however, wildlife is exposed to the site, storm water runoff from the site may provide a pathway for contaminants to enter surface water and groundwater, and future use of the site may place construction workers or other citizens in harms way. VDEQ and EPA must work together to clearly define the nature and extent of contamination on this property as it appears that much of this activity is not related to the Formerly Used Defense Site - NROP.

ORIGINAL





NEW





HERPES

D-3











HERPES II

D-6